B. THE COMMISSION SHOULD NOT ADOPT POLICIES BASED ON SPECULATION REGARDING NANP EXHAUST

The NPRM expresses substantial concern that the current pace of area code relief, if allowed to continue, would cause premature exhaust of the NANP.[26] This concern is based primarily on a study prepared by Lockheed Martin, the current numbering plan administrator and the provider of the national database infrastructure used to support LNP, which suggests that NANP expansion could occur sometime between 2006 and 2012.[27] Although recognizing that the Lockheed Martin study has been criticized by the industry, the NPRM nonetheless states that the need to adopt policies designed to expand the life of the NANP are "apparent and immediate."[28]

SBC strongly disagrees. The Lockheed Martin study is entirely not credible, and any reliance on it is misplaced. An industry review group, sponsored by the NANC and consisting of representatives from all industry segments with extensive experience in the all segments of the telecommunications industry, extensively reviewed the Lockheed Martin study, and did not agree with its conclusions.[29] Other, more reasonable estimates show that NANP exhaust is so far in the future that, in light of the current pace of technological developments, no reasonable and reliable prediction can be made when the NANP will exhaust. As such, there is no credible basis at this point on which the Commission could conclude that actions must be taken in order to prolong the life of the NANP, and the Commission should not base any

---

[26] *See NPRM* at ¶¶ 5, 31-34.

[27] *See id. at* ¶ 32.

[28] *NPRM* at ¶ 5.

[29] *See* Report of the NANP Exhaust Review Team, at 3 (May 3, 1999), *attached to* Letter from Alan Hasselwander, NANC, to Lawrence Strickling, FCC (May 12, 1999) [hereinafter *NANC NANP Exhaust Review Team Report*].

decisions in this proceeding on speculation regarding the possibility of premature NANP exhaust.

1. Lockheed Martin's NANP Exhaust Study Substantially Overstates Area Code Demand and NANP Exhaust

The Commission should reject the Lockheed Martin study in its entirety as wholly incredible. In considering the credibility of the Lockheed Martin NANP exhaust study, the Commission should consider the source of the study and its underlying assumptions. The Commission should also recognize that Lockheed Martin has refused to accept industry input that would modify its assumptions, and that Lockheed Martin has a strong financial incentive to overstate the demand for new area codes and NANP exhaust.

As an initial matter, the Commission needs to consider the source of Lockheed Martin's study. The study was designed and prepared by Lockheed Martin's Communications Industry Services division, without any notice to or advice from the industry. In fact, SBC has been informed that Lockheed Martin's own area code relief planners, who have experience in area code relief issues, were not consulted during the preparation of the study. When the industry attempted to provide input to make some of the more incredible assumptions more realistic, input based on extensive telecommunications experience, Lockheed Martin largely refused to accept their observations and suggestions. Thus, the study not only was produced without extensive input from experienced individuals, but Lockheed Martin affirmatively *refused* to accept comments provided by experienced individuals concerning the erroneous assumptions made in its study.

In considering this NANP exhaust study, the Commission should recognize that Lockheed Martin has a strong financial incentive to overstate NANP exhaust projections, and to

overstate the benefits that TBNP might provide to delay exhaust. As the sole source provider of the Number Porting Administration Center ("NPAC"), compensated in part based on the number of porting transactions, Lockheed Martin stands to benefit financially by increasing the number of number porting transactions processed by the NPAC, and the number of porting transactions would be dramatically increased by TBNP. Lockheed Martin's study not only exaggerated NANP exhaust, it also contained an unrealistic estimate of the benefits of number pooling. Lockheed Martin's report should be recognized for what it is – an advocacy piece in favor of TBNP, produced by the one company who is most likely to benefit financially from any decision to implement TBNP.

The Lockheed Martin NANP exhaust study consists of two modules: (a) a "tops down" model, which uses the number of new area codes introduced in the past few years to extrapolate a linear, compound growth rate ("Model 1"); and (b) a "bottoms up" model, which relies on a number of assumptions and projections concerning NXX demand to predict exhaust of a "model NPA," which, in turn, is used to estimate the number of required new area codes ("Model 2"). The results of these "models" are highly manipulatable, depending on the underlying assumptions employed.

Model 1 is fundamentally flawed by the single fundamental assumption underlying its design and its reliance on a relatively small number of data points. That assumption is that the growth rate in the assignment of new area codes will continue to grow at 12 percent, the same level that it has risen in the past few years, and that this exponential growth will continue until the NANP exhausts. This assumption is critical, because it fails to recognize that the area code growth rate was extremely low prior to the passage of the Telecommunications

Act of 1996 (the "Act"), and the growth rate jumped precipitously thereafter. Put another way, this is like assuming that a major event such as the introduction of local exchange competition occurs every few years, which causes constant *incremental growth* in the number of area codes assigned each year.

Not surprisingly, given the fundamental flaw in the design of this model, the NANC review team found that it was not credible. The "Executive Summary" provided by the review team states:

> Although the Review Team *did not agree with NANPA's estimate* of future NPA demand, they did agree that projecting demand depends upon many things but there is a single critical element, *i.e.,* whether recent NPA demand is an aberration or whether it represents a trend that is likely to continue."[30]

Given the fundamental flaw in its design, it is not surprising that Model 1 yields wholly incredible results. By 2008, the Model concludes that *410* new area codes would be introduced in the United States. In 2008, the model concludes that at least *65* new area codes would need to be introduced, more than double the amount of area codes introduced in any one year in the entire history of the NANP.[31] The review team noted that only in one year did the NANP expand by as many as 30 area codes (1997). The NANC review team noted that 1997 might well have been an aberration rather than a "trend" that should be assumed into future projections. The model, however, did not exclude from its compound growth rate calculation the highest and lowest number in its extremely small sample. The aberration is magnified by the fact that the model uses only a few data points to extrapolate into a compound growth rate.

---

[30] *See id.* at 3 (emphasis added). *See also* Letter from Michael Altschul, CTIA, to Alan Hasselwander (April 22, 1999) (criticizing the Lockheed Martin study), *attached to attached to* Letter from Alan Hasselwander, NANC, to Lawrence Strickling, FCC (May 12, 1999).

Model 2, the "bottoms up" model, yields results similar to, and it is just as incredible as, Model 1. The NANC review team "disagree[d] with many of the assumptions used by NANPA in" this model, but the model was designed so that many of the assumptions ultimately did not affect the outcome of the model.[32] Ultimately, only two variables had any significant affect on the NANP exhaust predicted by Model 2: the number of new entrants, and the number of rate centers where these new entrants would demand initial codes for "footprint." By 2008, the Lockheed Martin study assumed there would be a total of 25 wireline new entrants by 2008, each with one NXX code in at least 4,386 rate centers.[33] The model also assumes 26 total wireless carriers (13 two-way service providers, and 13 paging service providers), for a total (assuming one incumbent local exchange carrier) of 52 providers in many markets.[34] Taken together, the Lockheed Martin study assumes a total of 203,035 "footprint" NXX codes. This represents enough NXX codes to fill approximately *256 area codes* – more than the total number of area codes in operation in the United State today – or a total of *2.0 billion telephone numbers.* While these assumptions are unreasonably high on their face, *the Lockheed Martin study assumes that* ***not one of these two billion telephone numbers is ever assigned to a customer.*** In the Lockheed Martin study, all growth is accommodated through new telephone numbers, or what the study calls, "TNs."

---

[31] *See Lockheed Martin Study*, *supra* note 13, at 2-2.

[32] For example, the Lockheed Martin model overstated new entrant demand for NXX codes by assuming that all growth would be met through new numbering resources. This assumes that no increase in utilization of existing numbering resources, including the new entrant footprint NXX codes, and no substitution effect from LNP. However, the model so thoroughly overstated demand that this incredibly flawed assumption had very little impact on the outcome of the model.

[33] *Lockheed Martin Study*, *supra* note 13, at 3-16 & Appendix B-2.

[34] *Lockheed Martin Study, supra* note 13, at Appendix B-3.

Not surprisingly, the NANC review team found Model 2 fundamentally flawed as well. As stated in the team's report:

> The industry review team disagrees with many of the assumptions used by NANPA in its bottom up NANP Exhaust projection. However when all changes recommended by industry are reflected in the NANPA Model, with the exception of two factors driving new providers' NXX demand, the estimated NANP exhaust date shifts only about two years, to 2010 versus NANPA's 2008 estimate. When industry concerns about the assumptions used to drive new providers' NXX demand also are included, the NANP exhaust date estimate moves to 2016. A further refinement (capping the quantity of new "equivalent CLECs" at 20 in 2005) indicates a NANP exhaust of 2023.[35]

SBC believes that the adjustments noted by the NANC review team are far more credible than those developed by Lockheed Martin. Although the number of new entrants and the number of rate centers they will enter are difficult to predict (as the NANC review team report admits), Lockheed Martin's projections are so far beyond any reasonable basis, they must be rejected.

2. NANP Exhaust is so Far in the Future That it Cannot be Predicted to any Reasonable Degree of Certainty

SBC believes the range developed by the NANC review team (2016-23) is a reasonable estimate of the "*worst case*" estimate of NANP exhaust. SBC conducted an informal analysis of the "worst case" review of area code assignment in the areas where it provides local exchange service, and this internal "worst case" review, if extrapolated to the rest of the country, results in NANP exhaust in approximately the same range as the range proposed by the NANP review team. However, even these "worse case" estimates assume that the demand for NXX codes will continue at an extremely high rate for many years, that the policies adopted in this

[35] *NANC NANP Exhaust Review Team Report*, *supra* note 29, at 3.

proceeding would have no effect on the pace of area code relief, and no technological developments will occur that would allow more efficient use of telephone numbers in the next 20 years.[36]

Even "worse case" analyses underestimate the date that the NANP would actually exhaust. Actual exhaust likely would be several years later than these projections, because the projections do not include available resources that would be assigned before exhaust of the NANP. First, there are 80 area codes reserved specifically for NANPA exhaust which are not included in the projections.[37] These 80 area codes, which represent almost 64,000 NXX codes (633.6 *million* telephone numbers), are specifically *intended* to be used for NANP expansion and almost certainly would be assigned before NANP exhaust. Second, the "D digit" would need to be opened prior to NANP expansion, which would increase the supply of NXXs in every area code in the NANP by as much as 20 percent. Taking these two supplies of numbering resources into account, NANP expansion almost certainly would occur several years later than these "worse case" scenarios.

It is entirely unclear at this point whether demand for new area codes, even if unmodified by regulatory policies, will continue at its current pace, or how long it might continue. In fact, there is evidence that area code demand already may be slowing in some areas. For example, in the five state area where Southwestern Bell Telephone Company ("SWBT")

[36] It is unreasonable to assume that the policies adopted in this docket would have no impact on area code demand. If the Commission acts to improve utilization rates by adopting administrative measures such as fill rates and making changes in area code relief policies to ensure area codes are assigned more efficiently, this should have an impact on the pace of area code relief. No NANP exhaust projection to date has attempted to quantify the benefits from these policies, or account for them in NANP exhaust predictions. To assume that these policies would have no effect at all clearly understates the life of the NANP.

provides local exchange services, *seven* new area codes were introduced in 1997. In 1998, no new area codes were added, and in 1999, only *four* new area codes will be introduced. At this point, within all 32 of the area codes within the SWBT region, only *two* area code relief projects are in planning. This is a dramatic reduction in the introduction of new area codes within these five states.[38] If demand elsewhere decreases in the same manner, it is highly likely that even the NANC review team projection is unrealistically short, and it proposes a life that could extend *24 years.*

It is unrealistic to assume (as all of these studies do) that there will be no technological innovations that will reduce the demand for area codes in the next *24 years.* The public switched network has undergone radical changes in the past 24 years. Switches have radically changed as well over the past 24 years and have converted from fully mechanical switches (step-by-step) to analog switches (1AESSs) and now digital switches. Out of band signaling and databases have revolutionized telephony services and capabilities. Interoffice facilities have transitioned from copper to fiber, bring a dramatic increase in call carrying capacities. Operator services transitioned from switchboard operators to an automated system. Already there are industry standards that allow telephony addressing using non-NANP numbers (for asynchronous transfer mode ("ATM") high-speed data services). Single telephone number services, in which a customer would use only one telephone number for a number of services, are offered by some carriers, and these services may ultimately may lead to customers having a single NANP telephone number instead of several such numbers. About the only thing that can

---

[37] *See Lockheed Martin Study*, *supra* note 13, at 2-2.

[38] Moreover, as noted in note 21 and accompanying text, total NXX code assignments also fell more than 28 percent between 1997 and 1998.

be predicted with any degree of certainty about the telecommunications industry in 2020 is that the industry will undergo substantial technological changes and will look very different 20 years from now than it looks today. As a result, it is sheer speculation, given that NANP exhaust is 20 years or more in the future, to make any prediction about when, if at all, the NANP will exhaust.[39]

3. No Reliable Estimate Exists of the NANP Expansion Costs

The NPRM questions how long it would take to expand the NANP, and how much NANP expansion would cost society. The reason for the NPRM's inquiry regarding the time to expand the NANP is that if NANP expansion would take a substantial period of time, and NANP exhaust is imminent, then work must begin immediately to plan for NANP expansion.[40] It is clear that NANP expansion will take a substantial amount of time; however, as discussed in the preceding section, NANP exhaust is not imminent, and there is more than enough time to prepare for NANP expansion, NANP expansion becomes necessary in the future.

The NPRM also asks for estimates of the costs to expand the NANP, stating that "preliminary estimates" of the total costs discussed at the February 1999 NANC meeting established a range of $50 to $150 billion."[41] However, there has never been any analysis or estimate performed of the costs to expand the NANP, and the $50 to $150 billion statement, made during a NANC meeting, was nothing more than that – a bald statement, with no

---

[39] SBC thus believes that there is only theoretical support for the NPRM's statement that there is "general agreement that the expected life of the NANP is limited." *NPRM* at ¶ 32. While in theory, the life of the NANP is limited, as a practical matter, it is sheer speculation that the NANP will exhaust any time in the near future.

[40] *See NPRM* at ¶ 33. The planning for NANP expansion has already begun, as the Industry Numbering Committee ("INC") already has a industry group investigating NANP expansion.

[41] *NPRM* at ¶ 34 (parenthetical omitted).

supporting analysis or documentation. In short, that "estimate" is nothing more than a "regulatory myth." To the best of SBC's knowledge, there is no reason to believe that the cost of NANP expansion could be anything near this range – the costs of NANP expansion should be a fraction of this amount. However, until the plan for NANP expansion is more fully developed, there is no reasonable basis on which to make any estimate of NANP expansion costs.

Finally, the NPRM suggests it would be "particularly helpful" for commentors to "weigh the cost of extending the life of the current NANP through the various proposed numbering optimization strategies against the projected cost of expansion of the NANP."[42] For the reasons stated above, SBC respectfully suggests that any such comparative analysis would not be accurate or useful, and very likely could be grossly misleading. There is no reasonable basis on which costs can be estimated, or the present value of money reasonably predicted, more than 20 years in the future.[43] Accordingly, SBC urges the Commission to base its policy choices on the proven and reliable data that is available at this time, and not any speculation regarding the possible timing of NANP exhaust or the (as yet) unestimatable costs of NANP expansion.

III. THE COMMISSION SHOULD PHASE-IN A UNIFORM 70 PERCENT UTILIZATION THRESHOLD FOR ALL CARRIERS

The Commission requests comment on whether it should adopt a "carrier choice" incentive-based mechanism to increase industry-wide utilization. Under this proposal, the

---

[42] *NPRM* at ¶ 34.

[43] Thus, the Commission should not rely on any net present value calculations, such as that presented in the NPRM. *See NPRM* at ¶ 34 n. 51. In addition to the speculative inputs of costs and dates, the Commission's recommended three percent "real cost of capital" is grossly understated. SBC estimates that the short term weighted average cost of capital its telephone companies is currently 9.5 percent with moderate risk. The risk associated with a *society-wide* investment that could involve many billions of dollars spread throughout society, with constantly

Commission would proscribe a required utilization rate that all carriers would be expected to meet, and the Commission would not mandate that carriers implement any particular technical solutions as long as they meet this utilization rate.[44]

SBC strongly supports a modified version of this proposal – a utilization threshold, phased in over three years, which carriers would be expected to meet in most circumstances in order to secure additional numbering resources. If implemented correctly, a utilization threshold would offer administrative simplicity, would maximize carrier choice, would permit carriers to minimize their costs, and would directly increase utilization rates. If applied uniformly to all carriers, "carrier choice" would ensure that numbering optimization policies remain competitively neutral and even-handed. Where specific proposals can be applied to specific carriers, SBC thus urges the Commission to adopt a utilization threshold as a part of its number optimization policies.[45]

However, to provide the maximum benefit, a single utilization threshold would need to be applied equally to all carriers, and it would need to be phased in over the next several years. In addition, the utilization rate should be applied, at least initially, only in the major metropolitan areas (the largest 100 MSAs) where demand for numbering resources currently is greatest. Limited exceptions to the threshold would be needed to allow carriers to receive needed resources where they have implemented all optimization methods required by the Commission.

---

changing technology, more than 20 years in the future is significantly beyond the scope of a traditional net present value analysis.

[44] *See NPRM* at ¶ 216.

[45] Some potential policies, such as those associated with ten-digit dialing, relieving area codes, consolidating rate centers, and forecasting NXX demand, cannot be meaningfully applied to only some carriers and therefore "carrier choice" would not be applicable. Others, such as utilization

In addition, a "carrier choice" strategy would have to be implemented in connection with other policies to be effective.

A utilization threshold would need to be phased in over time and not imposed immediately on carriers. In order for carriers to take advantage of the flexibility inherent in a utilization threshold, carriers would need sufficient time to determine the standards that they must meet and to choose and implement policies to accomplish that goal.

SBC proposes that a utilization rate initially be applied to determine which LNP-capable carriers should implement TBNP. Carrier who have NPA-wide utilization below the threshold should be required to participate in TBNP in that NPA; carriers who have utilization above the threshold should not.[46]

The NPRM suggests that the maximum benefits of a "carrier choice" strategy could be realized by setting the utilization rate low initially and increasing it over time.[47] SBC agrees. Setting a lower utilization rate would give carriers maximum incentive to voluntarily improve their utilization and minimize the cost to society of increasing utilization; alternatively, setting a utilization rate that is too high initially could result in carriers being unable to meet the threshold. SBC thus recommends that the initial utilization rate, used to determine which carriers are initially required to implement TBNP should be set at 55 percent.[48] The prescribed

---

reporting and audits, should be applied to all carriers to ensure that carriers are meeting the prescribed utilization rates.

[46] The Commission should mandate that wireline carriers entering new area codes after the implementation of number pooling implement LNP and number pooling in those area codes.

[47] *See NPRM* at ¶ 220.

[48] The definition of "working telephone numbers" and the method for calculating utilization, are discussed in Sections IV.A and IV.C, *infra*. As explained in more detail in that section, utilization should be mandated and reported at the "Lowest Code Assignment Point," or "LCAP," which is discussed in Section IV.C.3, *infra*.

utilization rate should then increase five percent a year thereafter to a maximum of 70 percent at the end of the three-year period.[49] Carriers should calculate utilization rates for this purpose at an area code-wide level.

During the three year phase-in period, carriers should be required to provide "Months To Exhaust" forecasts to establish their need for additional numbering resources in the rate center, and carriers should be required to report their current utilization rate for numbering resources in that applicable area. [50] In the event that the reported utilization falls below the mandated utilization threshold, carriers should be required to provide a written justification of the need for additional resources on the "Months To Exhaust" form. This written statement would be subject to review in the event of an audit.

The Commission should not impose different utilization rates for different classes of carriers. It would be a clear and unequivocal violation of competitive neutrality to adopt such an approach.[51] Moreover, different utilization rates would undermine the entire purpose of a "carrier choice" strategy to provide for cost-effective optimization of number resources, because it could permit some classes of carriers to maintain low utilization and impose costly requirements on carriers with efficient utilization. If the Commission wants to ensure that the industry achieves a high utilization, it needs to mandate a uniform requirement for all carriers.

---

[49] The Commission questions whether state commissions should be permitted to establish utilization requirements. *See NPRM* at ¶ 224. SBC strongly recommends that the Commission establish a single, national utilization threshold and a uniform method for calculating utilization. A single, uniform national standard would be easier for NANPA, carriers, and auditors to administer than multiple different state standards. Moreover, a national standard likely would result in achieving higher utilization by the industry, particularly if some states did not adopt utilization requirements.

[50] The verification of need for numbering resources is discussed in more detail in Section IV.B, *infra*.

After the phase-in period is complete, a carrier normally would be expected to meet the required utilization rate for existing resources at the "Lowest Code Assignment Point" ("LCAP") before receiving additional resources.[52] However, limited exceptions should be allowed. If a carrier implements all required numbering optimization techniques, including TBNP where it is implemented, and still falls short of the prescribed utilization threshold, but can establish a legitimate business need for additional resources, the carrier should not be denied needed numbering resources. To ensure that carriers have access to the numbering resources that they truly need, the Commission should direct the NANC to establish detailed, specific circumstances in which NANPA would assign resources to carriers who do not meet the utilization requirement. There will be some circumstances where carriers might legitimately not be able to meet the prescribed utilization threshold. For example, a wireless carrier might fall below the utilization threshold for a short period before the start of the holiday season, when it needs substantial resources to meet anticipated demand. Similarly, a rate center serving a large university might experience a low utilization rate during summer recess, but a high utilization the remainder of the year. Alternatively, a competitive local carrier might be participating in TBNP, assigning numbers sequentially, and taking all necessary steps to assign numbers to customers, but it might not have enough demand from customers that need new services to fill 700 numbers in a single block of 1,000 numbers. However, these carriers also should not need additional resources, except in rare instances. A phased deployment of the "carrier choice" threshold over three years would also provide an opportunity to increase their utilization rates up to the required level, and thereby reduce the need for exceptions.

---

[51] *See NPRM* at ¶ 220.

Carriers should not be "penalized for failing to meet the prescribed utilization rates."[53] Such an approach could be counterproductive and unfair to carriers who are using resources efficiently and legitimately, but nonetheless fail to meet the prescribed utilization rate. If the Commission discovers that a carrier fails the utilization rate and has failed to implement required optimization techniques, or has affirmatively misrepresented its utilization rates, then penalties should apply; however, carriers should not automatically be penalized for failing to meet the prescribed utilization rates. Restricting a carrier's ability to get new numbering resources where it has low utilization should ensure that carriers have adequate incentives to increase their utilization rates to the prescribed level.

The "carrier choice" strategy should only be applied to the major metropolitan areas of the country, and not in rural areas. The Commission recognizes that it might make sense to have "no requirement at all" in rural areas because of the relatively low demand for numbers in these areas.[54] In fact, in these areas, particularly for the carrier of last resort, optimization measures likely will not be very effective in increasing utilization. As just one example (one that occurs quite frequently in many local exchange territories), a carrier of last resort might be the only carrier in a town of 5,000 people or less, and that town very likely would have its own rate center (because of the distance from other areas). In this circumstance, the carrier of last resort would have to have a full NXX to provide service to these 5,000 people, and would likely use substantially less than 5,000 of the numbers in the NXX. A "carrier choice" strategy in this instance is unlikely to appreciably increase utilization. These situations are common today in

---

[52] The LCAP is discussed in more detail in Section IV.C.3, *infra*.

[53] *See NPRM* at ¶¶ 221, 224.

[54] *See NPRM* at ¶ 222.

many rural areas. Applying a utilization threshold to rural areas also would not solve the principal problem facing regulators today, which, as discussed above, is caused by the high numbering resource demand, which is largely concentrated in major metropolitan areas. In the event that the demand for numbering resources extends to rural areas at some point in the future, the Commission can consider then whether to extend the utilization requirement to rural areas.

IV. THE COMMISSION SHOULD STRENGTHEN NUMBERING ADMINISTRATION AND ENFORCEMENT

SBC strongly supports the NPRM's proposal to adopt a series of administrative measures to "inject a greater degree of discipline into the process of allocating and assigning numbering resources."[55] Specifically, SBC endorses adoption of numbering usage definitions that must be followed by all providers; detailed showing of need requirements for initial and growth codes, including the phase-in of the utilization threshold adopted in the previous section, mandatory forecasts and utilization reporting, aggressive policies and procedures for NXX code reclamation, and a comprehensive audit and enforcement program. SBC believes that these measures can provide substantial benefits by ensuring that carriers ask for and retain only those numbering resources that they need. At the same time, SBC agrees that these measures can be implemented relatively quickly and at substantially lower cost than other options (such as TBNP).[56]

The NPRM asks a series of questions regarding whether these administrative requirements should be promulgated into regulations or incorporated into existing industry

[55] *NPRM* at ¶ 37.

[56] *See NPRM* at ¶ 37.

guidelines.[57] It is important that the requirements adopted in this proceeding be enforceable against all carriers, but it also believes that the more detailed requirements (such as the definitions of specific categories of number usage) need to be flexible and capable of modification to be workable; slow moving, inflexible set of rules might not be able to keep pace with the marketplace.

Thus, SBC recommends that regulations be promulgated that would require carriers to comply with general principles and more detailed specific requirements be incorporated into guidelines (with regulations mandating carrier compliance with the guidelines). Regulations should require that all carriers comply with industry guidelines, and that all carriers provide forecasts and utilization data as adopted in the guidelines in accordance with the usage category definitions (adopted in this proceeding and incorporated into the guidelines).[58] In addition, detailed regulations or changes to regulations should be promulgated to delegate additional authority to state commissions and to establish additional requirements of NANPA.

A. NUMBER USAGE CATEGORY DEFINITIONS SHOULD BE INCORPORATED INTO INDUSTRY GUIDELINES

Uniform definitions of categories of number usage are essential to collect accurate and meaningful data of carriers' numbering resource usage, and they are essential to policy makers in tracking and monitoring numbering administration standards. Standard usage definitions also are key to enforcement of administrative standards, as the disclosure of accurate

[57] *See, e.g., NPRM* at ¶ 40.

[58] The guidelines that are most central to the issues in this proceeding are the INC's Central Office Code Assignment Guidelines, the NPA Relief Planing Guidelines, the Thousand Block Pooling Administration Guidelines (which would apply only where TBNP is implemented, and only to TBNP-participating carriers), and the guidelines for the aging of telephone numbers ultimately adopted by the INC.

utilization rates of individual carriers to regulators, NANPA, and auditors, necessarily should be a cornerstone of any enforcement program. To that end, SBC has been and continues to be an active proponent in the ongoing industry efforts to develop a comprehensive set of number usage definitions. SBC thus strongly supports the Commission's tentative conclusion that a uniform set of definitions for the status of numbers be established.[59]

The Commission correctly notes that the industry, through the Industry Numbering Committee ("INC") and the NANC, "already has devoted a substantial degree of effort to developing a uniform set of number status definitions...."[60] SBC agrees, and it generally supports the definitions developed by the INC and the NANC as a complete and comprehensive set of number usage status definitions that should be followed by all carriers.[61] The Commission should direct the INC to incorporate these definitions into existing Central Office Code Assignment Guidelines and the Thousand Block Pooling Administration Guidelines, as intended by the INC.[62] The Commission should adopt regulations to require that all carriers comply with these guidelines in developing and reporting utilization rates.

---

[59] *See NPRM* at ¶ 39.

[60] *NPRM* at ¶ 40.

[61] The Commission questions whether any numbering usage definitions would be necessary or useful, such as whether a definition should be added for numbers assigned to resellers. *See NPRM* at ¶ 40. SBC does not believe that any further number resource definitions are necessary at this time, but, in the event that it would be necessary or useful to consider additional definitions in the future, the industry standards process could develop these additional definitions.

[62] *See NPRM* at ¶ 35.

However, it would not be prudent for the Commission to codify the entire set of number usage definitions into regulations, at least at this time.[63] The INC's work on the definitions is continuing, and it has adopted, or is actively considering whether to adopt, modifications to several of the definitions set forth in the NPRM.[64] The industry is still considering the appropriate standards to govern "reserved" numbers, and it has not finalized a definition (although it intends to do so as soon as the underlying policy issues are resolved by the Commission).[65] Some of the proposed revisions involve minor "cleanup" of the definitions, others are important to eliminate ambiguity, and others are essential to ensure that the definitions yield accurate and verifiable results. It is quite possible that further refinements to the definitions may be advisable in the future. The definitions are very new, and it is quite likely that, as carriers begin to actually use the definitions, the industry, NANPA, auditors, and commissions will discover ways that the definitions can and should be improved.

It would be extremely cumbersome and time-consuming for the Commission to make these needed improvements in the definitions through codifying the definitions in regulations. The "lag" time between the time that necessary modifications are adopted by the industry and the time that the Commission modifies the regulations could lead to substantial periods where problems and ambiguities undermine the efficacy of utilization rates. As a result,

---

[63] *See NPRM* at ¶ 40 (seeking comment on whether the proposed definitions should be codified in regulations).

[64] Definitions that the INC has already modified or is considering modifying include the definitions of "administrative" numbers, "wireless E911 emergency services routing digits/key (ESRD/ESRK)" numbers, "aging" numbers, numbers assigned to "dealer number pools," and "ported out" numbers.

[65] *See NPRM* at ¶¶ 46-50.

it would be better for the Commission to ensure that the definitions are incorporated into industry guidelines, where necessary corrections and refinements can be made in a more timely fashion.

Responses to inquiries regarding specific definitions are set forth below.

1. "Internal Business Purpose/Official" Numbers

The NPRM asks what purposes official numbers are used for, and whether it should specify appropriate or inappropriate uses for official numbers.[66] These numbers are used for a variety of purposes, including ordinary business lines, internal network operations, and the like. At this point, there is no reason to believe that carriers are mischaracterizing numbers as official numbers, or otherwise misusing this category. The usage of these numbers needs to be flexible depending on market needs, and overly strict restrictions on these numbers could interfere with carriers' abilities to provide service in an efficient manner. Accordingly, SBC does not recommend any restriction of this category (other than that the numbers be used for "official business purposes").

2. "Test" Numbers

The NPRM asks for an explanation of how test numbers are used and whether the Commission should tighten the definition by "specifying appropriate testing uses for numbers, or by identifying uses that are not appropriately termed 'testing.'"[67] SBC uses test numbers for all types of testing, including use by maintenance technicians at customer locations, and for internal network and inter-company inter-network test procedures.

---

[66] *See NPRM* at ¶ 41. The INC has agreed to change the number of the category previously called "employee/official" number to "official business purpose/official" number.

[67] *NPRM* at ¶ 41.

At least one state commission has expressed concern regarding the number of test codes used by carriers in that state. There may be reasons why different test numbers and different categories of test numbers, could be necessary in different states.[68] Accordingly, SBC suggests that the Commission should encourage state commissions to work with the NANPA and the industry to reclaim any unnecessary "test" codes.

3. "Aging" Numbers

The NPRM asks whether the Commission should adopt standards for "aging" of telephone numbers.[69] Aging, as the NPRM notes, is the process of leaving a number unassigned for a period after service is disconnected. Aging serves an extremely valuable function for customers and carriers alike. For customers, aging intervals allow notification to be provided to anyone calling the disconnected number advising the caller of the called party's new telephone number. This is of utmost importance to many business customers, who rely on telephone calls for the majority of their businesses. Aging intervals also provide a "grace period" for new customers, so that new customers are not inundated with calls intended for the disconnected customer. In short, aging intervals provide substantial benefits and valuable services to customers. Thus, there need to be reasonable intervals that numbers can be aged. At the same time, numbers should not be permitted to be aged indefinitely.

---

[68] *See, e.g., Massachusetts Department of Telecommunications and Energy Request for Additional Authority to Implement Various Area Code Conservation Methods in the 508, 617, 781, and 978 Area Codes*, Massachusetts Department of Telecommunications and Energy's Petition for Waiver of Section 52.19 to Implement Various Area Code Conservation Methods in the 508, 617, 781, and 978 Area Codes, at 7, NSD File No. L-99-19 (filed Feb. 17, 1999).

[69] *See NPRM* at ¶ 42.

The NPRM notes that the INC has developed guidelines that contain recommended aging intervals.[70] These guidelines recommend aging residential numbers for 30-90 days; business numbers for 90-365 days; and high volume calling numbers for 18 months.[71] SBC believes that these guidelines strike the correct balance between efficiency and customers' needs. However, the guidelines list these intervals as "recommendations," not as requirements. To ensure that the guidelines are enforceable, these intervals should be mandatory. SBC thus recommends that the Commission direct the INC to make the proposed aging intervals requirements, and finalize the guidelines.

4. "Assigned" Numbers

The NPRM questions whether it should restrict the amount of time that a number can be classified as "assigned" while a customer service order is pending, such as three to five days.[72] However, such a restriction is unnecessary and may cause unjustified disruption for customers. When a number is assigned to a customer, the carrier has a strong incentive to complete the service order and activate the customer's service as soon as possible. Because carriers already have the incentive to complete the customer service order as soon as possible, an administrative requirement would serve little purpose.[73] Moreover, if a customer's service order was not fulfilled in the required interval, the customer would have to go through the inconvenience of securing a new telephone number.

---

[70] *See NPRM* at ¶ 42 n. 70.

[71] Industry Numbering Committee, Aging and Administration of Disconnected Telephone Numbers, Draft, at § 3.1 (March 22, 1999) <http://www.atis.org/atis/clc/inc/incwdocs.htm>.

[72] *See NPRM* at ¶ 43.

[73] Of course, if a carrier specified a number as "assigned" before the number was assigned to an end user customer, the carrier would improperly characterize the number and could be held responsible for such mischaracterization.

5. Numbers Assigned to "Dealer Numbering Pools"

The NPRM seeks comment regarding how carriers characterize these numbers internally, and whether there should be any limitation on assigning numbers to dealers.[74] When these numbers are allocated to dealers, they are treated internally as assigned. If they were not, then a carrier might accidentally assign the same number twice – initially to one dealer, and then to an end user customer or other dealer.

A substantial amount of wireless service today is sold through dealer retailing arrangements, and any limitations on the numbers that could be assigned to dealer pools could adversely affect competition. Moreover, there is no suggestion at this time that wireless carriers are mischaracterizing numbers as assigned to dealer pools. Accordingly, there is no reason that this category should be restricted beyond the INC definition.[75]

6. "Ported Out" Numbers

The NPRM asks a number of questions about how ported numbers should be characterized for the purposes of calculating carrier numbering utilization.[76] The INC has spent substantial time considering this issue, and it properly concluded that the carrier assigned the telephone number from number administration should report the number as a "ported out" number, and the carrier who receives the ported number should not include the number in its inventory.[77]

---

[74] *See NPRM* at ¶ 44.

[75] INC has revised the definition slightly from the form that it appears in the NPRM. The revision deletes the phrase "a set of" at the beginning of the definition.

[76] *See NPRM* at ¶ 45.

[77] In fact, the INC currently is considering changes to the definition of a "ported out" number to make it clear that the ported number is for "the exclusive use by the end user customer for whom

The INC definition proposes the only workable manner that ported numbers can be included in industry utilization calculations. If the carrier receiving the ported number counted that number in its inventory, the number would be double-counted and total number inventory for the NXX and NPA could not be verified against total assigned resources. If the carrier porting the number out did not count the number in its inventory (in order to eliminate the double counting), *neither* carrier's inventory would be verifiable against assigned resources. With potentially thousands (or tens of thousands) of ported numbers, it would be impossible to verify that each carrier had properly prepared and calculated its utilization rate.

Reporting of a ported number by the carrier who is assigned the resource also makes the most sense from a numbering administration perspective. The most important issue to numbering administration is determining how many unassigned and unused numbering resources are assigned to carriers. If a number is ported, it is being used, and is not available for assignment to another customer. However, it is included in the porting carriers' inventory, and if it is excluded from that inventory, utilization reports would understate the quantity of numbers assigned to the porting carrier. When a ported number is disconnected, it would return to the carrier assigned the numbering resource, and would not be available for the assignment by the carrier who received the ported number.

7. "Reserved" Numbers

The NPRM correctly notes that the industry has been working to develop a definition of reserve numbers, and it lists industry-agreed upon characteristics of and broad

---

the number was ported." The proposed revision clarifies that the number is not part of the porting carrier's inventory, and should not be considered part of the porting carrier's inventory.

guidelines for reserved numbers.[78] The NPRM questions whether these characteristics and broad guidelines are sufficient for the industry to fashion an appropriately limited definition of reserved numbers.[79]

SBC, which has participated in industry efforts regarding reserved number policies, believes that the characteristics and broad guidelines provide the necessary basis for the industry to develop a properly limited definition of "reserved" numbers, or (if appropriate) industry guidelines regarding number reservation. However, to the extent that the Commission believes that further restrictions are necessary or appropriate, SBC also supports MCI WorldCom's proposal that reserve numbers should be set aside for the future use of a specific customer under the terms of a legally enforceable written agreement (which would include, of course, tariffed services).[80] NANC is expected to issue a recommendation regarding reserved numbers at its August meeting.

Finally, reserved numbers should be part of the category of numbers that are "unavailable for assignment."[81] Numbers that are properly and legitimately reserved for customers *are* unavailable for assignment, and cannot be assigned to other customers. Excluding reserved numbers from utilization calculations would present misleading data to policy makers and, if it had any effect at all, could only discourage carriers from allowing customers to reserve numbers. Customers receive substantial benefits from being able to reserve blocks of numbers for future use, particularly business customers, and the competitive market should be allowed to

[78] *See NPRM* at ¶ 46-47.

[79] *See NPRM* at ¶ 48.

[80] *See NPRM* at ¶ 48. With a legally enforceable written agreement, it is not necessary to require that customers pay a separate, specific fee for reserved numbers. *See NPRM* at ¶ 49. The agreement itself provides the incentive to limit the number of reserved numbers.